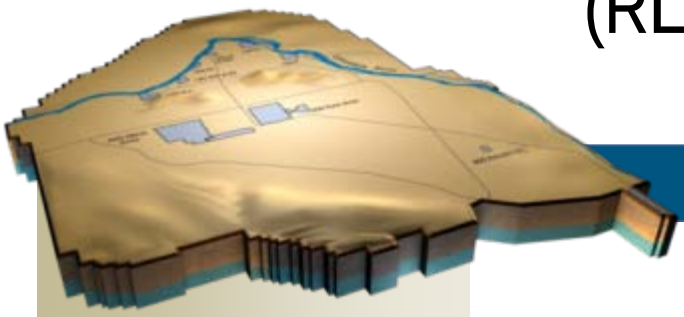
CH2MHILL
Plateau Remediation Company

Section D
Soil and Groundwater Remediation Project (RL-0030)



Monthly Performance Report

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August 2011
CHPRC-2011-07, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

200 West Pump and Treat – Update August 25, 2011

PROJECT SUMMARY

American Recovery and Reinvestment Act (ARRA)

Progress through the end of the fiscal month August is summarized in the table below.

Activity	August		Cumulative	
	Planned	Completed	Planned	Completed
Well Drilling (number of wells) -	0	0	303	303
Well Decommissioning (# of wells) -	0	0	280	280
100 DX Pump and Treat (P&T) – Construction/Startup (percent)	-	-	100	100
200 West P&T – Final Design (percent)	-	-	100	100
200 West P&T – Construction (percent)	6	6	88	94
200 West P&T – Testing/Startup (percent)	8	8	90	88

Base

Base work included pump-and-treat operations, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) remedial processes, and documentation for the River Corridor and Central Plateau. Sampling and groundwater treatment completed in August includes the following:

- 160 well locations were sampled with a total of 546 samples being collected
- 61 aquifer tube samples collected from 38 tubes at 19 locations
- 16.2M gallons groundwater treated by ZP-1 treatment facility
- 21.5M gallons groundwater treated by KX treatment facility
- 6.9M gallons groundwater treated by KW treatment facility
- 4.4M gallons groundwater treated by KR-4 treatment facility
- 22.3M gallons groundwater treated by DX treatment facility
- 71.3M gallons of groundwater treated total

EMS Objectives and Target Status

Objective#	Objective	Target	Due Date	Status
11-EMS-SGWR-OB1-T1	Take actions necessary to protect the Columbia River by fiscal year (FY) 2012	Treat 500,000,000 gallons of 100 Area (D, H & K Area) groundwater	9/30/11	Complete (7/31/11)
		Review and tally total number of gallons treated	Monthly	Complete (7/31/11)
10-EMS-SGWR-OB2-T1	Construct a new GW treatment facility that satisfies the P&T component of the 200-ZP-1 Operable Unit (OU) Record of Decision (ROD) selected remedy	Construct new 200 West Area P&T facility to remediate GW which was impacted from past plutonium production operations	12/31/11	On schedule
		Start construction of road crossings	11/30/09	Complete (11/2/09)
		Start early civil construction	3/30/10	Complete (3/19/10)
		Start construction of GW extraction buildings	3/30/10	Complete (3/19/10)
		Complete treatment facility construction	12/31/11	On schedule
10-EMS-SGWR-OB4-T1	Reduce Project Waste Generation	Track & quantify project cost savings from on-going waste reduction initiatives	1/31/11	Closed (2/10/11)
		Track, quantify & report on drill cuttings RTEd in lieu of disposal at ERDF	30 days after CY Qtr-end	Complete
		Track, quantify & report on use of ERDF boxes in lieu 55-gallon drums	30 days after CY Qtr-end	Complete
		Track, quantity & report on purgewater generation avoidance	30 days after CY Qtr-end	Complete

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	2	N/A
Total Recordable Injuries	1	13	**08/26** – Employee was installing saddle valves for low point drains. Employee lost grip and the pipe fell down, striking him on the head, causing a slight laceration. Employee was taken to CSC, glue bandage was applied and cleared to return to work. **22276** (EPC)
First Aid Cases	12	123	**08/08** – Employee stung by sweat bee. **22194** (EPC) **08/08** – Employee received small scrape on elbow from serrated edge of an aluminum foil box. **22192** (S&GRP) **08/12** – Employee strained neck at morning stretch and flex. **22220** (EPC) **08/16** – Employee felt pain in lower back while lifting 6" piping over head with others. **22228** (EPC) **08/17** – Gnat flew into employee's eye causing irritation over night. **22261** (EPC) **08/22** – Employee felt slight back pain after pulling hose against water current towards shore. **22259** (S&GRP) **08/24** – Employee noticed reddening and slight swelling on forearm after brushing off insect. **22265** (EPC) **08/24** – While using a strap wrench, with an extended arm, employee reported feeling a pain in right elbow with a pop/snap noise. **22267** (EPC) **08/26** – Employee was in boom lift and felt shock on his left side. **22280** (EPC) **08/28** – Employee felt a sharp pain in back as bending over to pick up glue applicator brush. **22284** (EPC) **08/28** – after tightening bolts on valve employee noticed pain in arm/shoulder area. Diagnosed with left shoulder strain. **22285** (EPC) **08/29** – Employee received sting on right hand. **22294** (EPC)
Near-Misses	0	0	

KEY ACCOMPLISHMENTS

ARRA - GW CAPITAL ASSET

Drilling	August		Cumulative	
	Planned	Completed	Planned	Completed
M-24 -5 wells	0	0	5	5
200-ZP-1 West P&T Expansion -17 wells	0	0	17	17
Drilling Total	0	0	22	22

Engineering Projects and Construction (EPC) Projects in Support of Soil and Groundwater Remediation Project (S&GRP) - ARRA

- 200 West Area Groundwater Treatment Facility –KPP scope is 95% complete, with craft working two shifts, seven days a week to keep the installation of mechanical, electrical and process controls on schedule. Continued on schedule execution of 29 Construction Acceptance Tests (CAT): Five completed CATs with 24 Active CATs.

EPC Projects in Support of S&GRP – Base

100-HX Groundwater Treatment Facility –The Construction Acceptance Tests (CATs) are complete. The Acceptance Test Procedure began on August 3, 2011 and is 25% complete. Final flange connection at well heads is complete, and resin loading of ion exchange vessels is in progress. Ranging and functional checks of plant instrumentation is on-going. Installation of the gravel apron at the Treatment Building is complete.

ARRA - GW OPERATIONS

Well Drilling and Decommissioning – ARRA

	August		Cumulative	
	Planned	Completed	Planned	Completed
KR-4 Remedial Investigation/Feasibility Study (RI/FS) – 13 wells	0	0	13	13
100-NR-2 Barrier Emplacement – 171 wells	0	0	171	171
100-HR-3 H Area Remedial Process Optimization (RPO) – 40 wells	0	0	40	40
100-HR-3 D Area RPO – 30 wells	0	0	30	30
200-BP-5 “K” Well – 1 well	0	0	1	1
200-BP-5 “L” and “M” Well – 2 wells	0	0	2	2
100-BC-5 RI/FS – 10 wells	0	0	10	10
100-FR-3 – 3 wells	0	0	3	3
300 FF-5 RI/FS – 11 wells	0	0	11	11
Drilling Total	0	0	281	281
Decommissioning Total	0	0	280	280

BASE - GW OPERATIONS

Environmental Strategic Planning:

- Completed initial scope discussions with the customer on the plan for sequencing geographical zone remediation activities, Contract Deliverable C.2.5.3-2. The annotated outline is being revised to reflect the discussions.
- Completed the review and categorization of EPA/Ecology comments on the "graded approach for protection of groundwater" document (Regulatory Basis and Implementation of a Graded Approach to Evaluation of Groundwater Protection, DOE/RL-2011-50). Met with representatives of both Agencies on the path forward for comment resolution and final revisions of the document are underway.

Integration Management:

- River Corridor RI/FS Documents: Assisted in comment resolution and authored sections of 100-K RI/FS Draft A report (TPA Milestone (M-015-66 T01). Maintained the master comment file and applied resolutions to other RI/FS documents.
- Annual Groundwater Report: Prepared the user friendly version of 2010 Groundwater Annual Report for the S&GRP External web site.

Document Review & Standardization

- Completed coordination and submittal of EP&SP document reviews and consolidated responses for eight environmental documents.

River Corridor

100-BC-5 Operable Unit - Base

- The decisional draft document was reviewed by RL, and the comments are being incorporated into the Draft A document along with applicable 100-K comments (overarching RI/FS comments).

100-KR-4 Operable Unit - Base

- Finalizing the *Remedial Investigation/Feasibility Study for the 100-KR-1, 100-KR-2, and 100-KR-4 Operable Units,* Draft A, based on comment resolutions and status meetings with DOE. The *Proposed Plan for Remediation of 100-KR-1, 100-KR-2, and 100-KR-4 Operable Units,* DOE/RL-2011-82, Decisional Draft received minimal comments from DOE and is primarily being updated for consistency with the RI/FS. Both activities are on track to meet the delivery schedule to DOE and the TPA Milestone submittal.
- Operating KR-4, KW, and KX systems with 63 kg mass removed and 358 million gallons treated fiscal year to date. The SIR-700 resin loading was initiated at the first KW train.
- The fourth and final Phase 3 RPO well (C7696) drilled to 37.5 ft of the expected total depth of 140 ft.

100-NR-2 Operable Unit - Base

- RI/FS well drilling and sampling activities initiated at wells C8190 and continued at well C8189. Drilling and sampling of well C8188was completed and well construction was completed at wells C8184 and C8188. Overall, drilling and sampling has been completed at five of the eight RI/FS wells.

100-HR-3 Operable Unit - Base

- Comment incorporation has started on the 100-D/H RI/FS Report in order to prepare the Draft A document for submittal in November. TPA change notices were approved to authorize the drilling of the R5 replacement well at the 100-D-12 waste site in mid-September.

- Operations and maintenance personnel are supporting the HX Acceptance testing and preparing for operations acceptance testing.

100-FR-3 Operable Unit - Base

Internal review comments on the RI/FS report were incorporated into a decisional draft document. The decisional draft document was provided to RL for review on August 25, 2011.

Central Plateau

200-UP-1 Operable Unit – Base

- The drilling of first of three extraction wells was completed and the drilling at the second well is underway.

200-ZP-1 Operable Unit - Base

- System is online pumping water at 368 gpm
- FY 2011 groundwater modeling runs are complete. RL comments on the draft modeling report have been addressed and the final report is currently being issued.
- 200 West Area Groundwater Treatment Plant is preparing for construction acceptance testing.

Deep Vadose Zone - Base

- Completed demobilizing the field equipment from the desiccation test site and continued with post operation rebound testing.
- Initiated operation of the Gravity Drain phase of the Perch Water Removal Project on August 29, 2011. We will operate by gravity filling of the well sump for the next ~two months prior to installation of a vacuum system that will apply ~85 inches water column to accelerate the removal of the perch water North of B-Farms.

200-OA-1 Operable Unit – Base

- Transmitted the Draft A 200-OA-1 work plan and sampling and analysis plan to DOE for review and transmittal to EPA.

200-CB-1 Operable Unit – Base

- Transmitted the Decisional Draft 200-CB-1 work plan and sampling and analysis plan to DOE for review and comment

MAJOR ISSUES

No major issues to report this month.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk

Working - No Concerns
Working - Concern
Working - Critical

Increased Confidence
No Change
Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
SGW-001: 100-D Treatment Technology Selection Change	Review draft RD/RAWP with regulators; maintain close interface to minimize impact of changes.	Working - No Concerns	No Change	No significant issues.
SGW-050: Regulatory Strategy for Decision Docs	Continue to support RL in strategy negotiations with Agencies. A series of workshops have been established to resolve issues and develop a path forward for the 200-IS-1 Work Plan	Working - No Concerns	No Change	Issue regarding waste to be included in 200-IS-1 vs. 200-EA-1 and 200-WA-1 will be addressed in workshop with Agencies in July-August 2011.
SGW-069: 100-HR-3 ISRM Barrier Amendment - Hexavalent Chromium Continues to Move Through Barrier	Monitor zero valence iron injection; add four wells to P&T.	Working - No Concerns	Increased Confidence	DOE and Ecology have agreed to the strategy and signed a memorandum documenting the changes as insignificant. For wells will be used to supplement the barrier and capture down-gradient chromium. DX system is on line with extraction wells down gradient of the ISRM barrier.
SGW-080: 100-BC-5 Pump and Treat Required	This risk is accepted as written and will be monitored throughout work execution.	Working - Concern	No Change	EPA concurred that need for pump and treat will be evaluated as part of RI/FS process; existing sample data indicate a treatment system may be required as part of a final action under the future Record of Decision.
SGW-081: 100-FR-3 Pump and Treat Required	This risk is accepted as written and will be monitored throughout work execution.	Working - No Concerns	No Change	EPA concurred that need for pump and treat will be evaluated as part of RI/FS process but based upon current sample data, the need for treatment is not considered likely.
SGW-008B: Regulatory Document Comments for 100-HR-3	Routine meetings are being held with regulators during document development; no additional mitigation is feasible.	Working - No Concerns	No Change	The Decisional Draft was reviewed by DOE. DOE comments from the K document are being incorporated into the D/H document.
SGW-008U: Regulatory Document Comments for 200-SW-2 Landfills	Routine meetings are being held with regulators during the SW-2 Work Plan development; no additional mitigation is feasible. No additional funding is authorized in FY2011.	Working - Concern	No Change	Because of funding limitiations no additional meetings are planned. The 200-SW-2 Work Plan is being finalized.
SGW-017 - Groundwater Flow Less Than Planned - 200 West P&T (Phase I)	Project has accelerated drilling of 6 injection wells to ensure adequate injection capacity.	Working - No Concerns	No Change	Hydraulic analysis was performed and as a result, project is revising pump header configuration to accommodate startup and operations at ITB #1 and ITB #2.
SGW-003A: Central Plateau Drilling - 200W P&T	Utilize rotary drilling and cable-tool; work closely to resolve subcontractor issues and manage schedule.	Working - Concern	No Change	Contractor has experienced a number of field delays (late start, re-tooling, birds nesting, slower rate of construction) although drilling rate has improved but still a concern with only three wells drilled to depth and one completed. A second contractor has started drilling the first of the remaining three wells, providing us with some confidence the project will complete by end of Dec. as needed by the pump and treat start up plan.
SGW-025: Industrial Accident During Drilling	Subcontractors are evaluated on safety performance prior to contract award and are required to work under CHPRC safety procedures, including using appropriate safety equipment and conducting pre-job briefings. No further mitigation is warranted. Risk is accepted.	Working - No Concerns	No Change	No issues or incidents this month. ARRA funded wells have been completed.

RISK MANAGEMENT STATUS – Cont.

Unassigned Risk
Risk Passed
New Risk

Working - No Concerns
Working - Concern
Working - Critical

Increased Confidence
No Change
Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
SGW-031A: P&T Design Changes - 200 West	Identify required design changes early in the process to minimize schedule impact. Work closely with the client and regulators to minimize impact to schedule. Incorporate design changes quickly to minimize cost impacts and avoid rework. Supplement Eng/QA/QC support and contracts for special inspection so as to finalize engineering requirements.	Yellow	No Change	The baseline has incorporated the realized risk from the final issuance of the "issued for construction" drawings. As the scope is being constructed in the field the impact of design changes continues to be monitored.
SGW-041, Maintenance on the groundwater pump and treat systems is higher than planned due to reduced system reliability.	Shutdown of the older facilities as new facilities are brought on line.	Green	No Change	No impacts at this time
SGW-051: Compressed Schedule for 200 West P&T Project Due to TPA Commitment	Project team will work closely with RL and the regulators to minimize the potential of unexpected design changes and to implement any required design changes quickly so as to minimize the schedule impact. Additional funding will be required to mitigate these issues. Contractor schedule compression will be supplemented with appropriate detail over time. Design schedule has been extended and has overlapped construction and no constructability reviews have occurred. Include funds to account for changes and claims in budget, compare design and estimate costs for changes, perform phased constructability reviews. Project is already exploring options to accelerate schedule more so than what was delivered in general contractor's proposal.	Yellow	No Change	Agreed upon completion criteria with RL and Regulators. Progress is consistent but delays associated with the issuance of IFC have been experienced. Project is utilizing additional resources and working overtime to mitigate this risk. The concern is reviewed daily with the General Contractor to recover critical path work activities.
SGW-082, BC/FR RI Impacts	Delays in preparing earlier River Corridor RI/FS/PP documents impact scheduled for 100-BC-5 and 100-FR-3 documents.	Green	No Change	The 100-BC-5 and 100-FR-3 RI/FS and Proposed Plan documents are scheduled to follow the preparation of the 100-HR-3 and 100-KR-4 documents. Delays in the development of documents for those operable units could impact the ability to meet the TPA schedule for BC-5 and FR-3. Because of current schedule issues associated with 100-HR-3 and 100-KR-4, there is a low probability the BC-5 and FR-3 schedules will be impacted. Decisional Drafts of the BC and FIU RI/FS documents have been delivered to DOE for review.
SGW-083, River Corridor Characterization	Additional characterization wells are required to support the development of an RI/FS and Proposed Plan for the River Corridor groundwater operable units or to investigate findings from WCH data gathering.	Yellow	No Change	WCH is gathering data in and along the river. This data could result in the need to install additional characterization wells in the River Corridor operable units. Information and conclusions from WCH risk assessments is raising questions regarding the Riparian Zone and Columbia River component human health risk assessment.
SGW-091: Material Procurement - 200 West P & T	Work closely with the BTR to ensure timely placement of procurement contracts, including any necessary expediting. Supplement engineering support for RCI submittal resolution, on-site focus review including vendor participation as needed. Provide incentives for vendors to compress schedule.	Yellow	No Change	All major long lead equipment (LLE) has been received and accepted in the field. Significant interferences have been encountered in the field, including identification of ~700 suspect/counterfeit bolts. On-site support has been employed to modify, replace, and/or repair the interferences.

RISK MANAGEMENT STATUS – Cont.

Unassigned Risk
Risk Passed
New Risk

Working - No Concerns
Working - Concern
Working - Critical

Increased Confidence
No Change
Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
SGW-098: 200-W P&T - Schedule Impacts Due to Scope Increases	Contractor will hold periodic discussions with client and regulators to maintain a clear understanding of scope changes. As these issues are identified, they will be listed with other emerging issues. At this point, further mitigation tactics will be determined.	Working - Concern	No Change	The project is working closely with subcontractors to understand and work through impacts from design changes and maintain the accelerated project schedule. OT and additional shifts have been utilized in certain areas to ensure schedule requirements are met. Work continues to support software, simulator, procedures, and CAT development.
SGW-101, 100-NR-2 Strontium Downstream From Barrier	Strontium contaminants located downstream from the apatite barrier must be treated.	Working - No Concerns	No Change	The 100-NR-2 apatite barrier is designed to control and treat the strontium in the soil and groundwater to prevent migration to the river. There is a very low probability risk that strontium that is downstream from the barrier will require additional treatment.
SGW-108J: 200-UW-1 Increased Characterization Required	Incorporate additional deep boreholes into the baseline.	Working - Concern	No Change	This risk has been realized and the project is working the issue. Scope was included in Mod95 Proposal (but rejected); tentative period for funding is FY2013.
SGW-117, OPP: 100-KR-4 Resin Changes	The opportunity exists to replace the 100-KR-4 pump and treat systems resins with the SIR-700 resin, thus reducing the life-cycle operating costs for the pump and treat system.	Working - No Concerns	Increased Confidence	The SIR-700 resins have been successfully tested at 100-HR-3. Minor modifications to the resin or P&T systems may enable the SIR-700 resin to be successfully used in the 100-KR-4 pump and treat systems. This is a likely probability opportunity.
SGW-120: 200 West Safety Considerations	CHPRC oversight including site safety, IH, and construction management will work with the contractor on a daily basis to reduce this risk potential.	Working - Concern	No Change	Successful completion of the project is contingent upon ongoing implementation of safety and health practices. There has been an adverse trend concerning hoisting/rigging and use of dedicated spotters. Project is reiterating existing policies and participating in safety critiques to ensure compliance and improve performance going forward.

PROJECT BASELINE PERFORMANCE
Current Month
($M)

WBS 030/RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance ($)	Schedule Variance (%)	Cost Variance ($)	Cost Variance (%)
ARRA RL-0030.R1.1 Cleanup Operations	8.5	4.8	4.7	(3.7)	-43.8	0.1	2.6
ARRA RL-0030.R1.2 Well Drilling Operations	3.6	4.8	5.7	1.2	34.5	(0.9)	-18.7
ARRA RL-0030.R1.3 Support Operations	0.2	0.2	0.3	0.0	0.0	(0.1)	-41.8
ARRA Total	**12.3**	**9.8**	**10.7**	**(2.5)**	**-20.2**	**(0.9)**	**-8.8**
Base RL-0030.01 RL 30 (Operations)	8.8	9.5	9.7	0.7	7.7	(0.2)	-1.7
Base RL-0030.C1 GW Remedy Implement	3.7	3.6	2.3	(0.0)	-1.0	1.3	37.0
Base Total	**12.5**	**13.1**	**12.0**	**0.6**	**5.2**	**1.2**	**9.0**
Total	**24.8**	**23.0**	**22.7**	**(1.8)**	**-7.4**	**0.3**	**1.3**

Numbers are rounded to the nearest $0.1M.

ARRA

CM Schedule Performance: (-$2.5M/-20.2%)

Current month schedule variances that exceed thresholds are as follows:

ARRA RL-0030.R1.1 Cleanup Operations (-$3.7M)

200-ZP-1 OU (-$3.7M)

200W P&T construction is performing ahead of the baseline schedule, the negative schedule variance (SV) in the current month (CM) is the result of previously completed work with BCWS being realized in the CM.

ARRA RL-0030.R1.2 Well Drilling Operations (+$1.2M)

200-ZP-1 OU (+$1.3M)

200W P&T CM positive variance is due to early completion of business information modeling and early start on installation of heat trace.

ARRA RL-0030.R1.3 Support Operations ($0.0M)

Current month variances are within threshold.

CM Cost Performance: (-$0.9M/-8.8%)

The primary contributors to the current month negative cost variance that exceed the reporting thresholds are as follows:

ARRA RL-0030.R1.1 Cleanup Operations (+$0.1M)

Current month variances are within threshold.

ARRA RL-0030.R1.2 Well Drilling Operations (-$0.9M)

200-ZP-1 OU (-$0.9M)

200W P&T construction work costs in the period were greater than budgeted due to additional construction support/oversight resources and additional craft resources to complete tasks.

ARRA RL-0030.R1.3 Support Operations ($0.0M)

Current month variances are within threshold.

Base

CM Schedule Performance (+$0.6M/+5.2%)

The primary contributors to the negative schedule variance that exceed the reporting thresholds are as follows:

Base RL-0030.01 RL 30 (Operations) (+$0.7M)

Drilling (+$1.2M)

BCR-PRC-11-039 (FY12 Annual PMB Update) identified one UP-1 extraction well and three ZP-1 wells for completion in FY12 rather than FY11. This resulted in a current month positive point adjustment in August. There is no expected impact to TPA milestones as a result of this change.

100 HR-3 Operable Unit (-$1.1M)

100HX P&T construction has performed work ahead of schedule, the negative variance is the result of realizing BCWS in the CM for work completed in previous periods.

Base RL-0030.C1 GW Remedy Implementation (-$0.0M)

Current month variances are within threshold.

CM Cost Performance (+$1.2M/+9.0%)

The primary contributors to the cost variance that exceed the reporting thresholds are as follows:

Base RL-0030.01 RL 30 (Operations) (-$0.2M)

PBS RL-30 Reg Dec & Closure Int (+$0.3M)

The two primary drivers for the current month underrun are efficiencies obtained in completing outer area work scope and over reporting of performance for the IS-1 baseline. The status will be corrected in September and the project will remain with a positive CTD cost variance.

Base RL-0030.C1 GW Remedy Implementation (+$1.3M)

200-ZP-1 Operable Unit (+$1.1M)

A pump setting truck and two tractors were received in August and the corresponding cost from MSA will not be received until September. Also, additional efficiencies were obtained in the current month operations and maintenance activities of the existing ZP-1 pump and treat.

Contract-to-Date
($M)

WBS 030/ RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance ($)	Schedule Variance (%)	Cost Variance ($)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
ARRA RL-0030.R1.1 Cleanup Operations	165.9	167.1	169.1	1.2	0.7	(2.0)	-1.2	175.0	178.0	(3.0)
ARRA RL-0030.R1.2 Well Drilling Operations	36.0	38.2	35.8	2.1	5.9	2.4	6.2	40.7	38.0	2.7
ARRA RL-0030.R1.3 Support Operations	34.6	34.6	35.0	(0.0)	-0.0	(0.4)	-1.1	34.9	35.2	(0.2)
ARRA Total	**236.5**	**239.9**	**239.9**	**3.3**	**1.4**	**(0.0)**	**-0.0**	**250.6**	**251.2**	**(0.5)**
Base RL-0030.01 RL 30 (Operations)	359.1	357.8	364.8	(1.4)	-0.4	(7.1)	-2.0	1,223.5	1,231.4	(7.9)
Base RL-0030.C1 GW Remedy Implement	56.4	55.5	49.9	(0.8)	-1.5	5.6	10.1	78.9	76.5	2.4
Base Total	**415.5**	**413.3**	**414.7**	**(2.2)**	**-0.5**	**(1.4)**	**-0.3**	**1,302.4**	**1,307.9**	**-5.5**
Total	**652.1**	**653.2**	**654.6**	**1.1**	**0.2**	**(1.5)**	**-0.2**	**1,553.0**	**1,559.0**	**-6.0**

Numbers are rounded to the nearest $0.1M.

ARRA

CTD Schedule Performance: (+$3.3M/+1.4%)

The major primary contributors to the ARRA positive schedule variances that exceed the reporting thresholds are discussed below:

ARRA RL-0030.R1.1 Cleanup Operations (+$1.2M)

200-ZP-1 Operable Unit (+$1.2M)

200W P&T positive variance is the result of managing the primary contractor to an accelerated completion date.

ARRA RL-0030.R1.2 Well Drilling Operations (+$2.1M)

200-ZP-1 Operable Unit (+$2.0M)

200W P&T CM positive variance is due to early completion of business information modeling and early start on installation of heat trace.

ARRA RL-0030.R1.3 Support Operations ($0.0M)

Contract to date variances are within threshold.

CTD ARRA Cost Performance: (-$0.0M/-0.0%)

The major primary contributors to the ARRA negative cost variances that exceed the reporting thresholds are discussed below:

ARRA RL-0030.R1.1 Cleanup Operations (-$2.0M)

Contract to Date variances are within threshold but need to provide RL explanation.

100 HR-3 Operable Unit (-$0.9M)

The negative cost variance for 100DX is the result of increased installation costs on the pH adjustment system, the impacts of weather on completing construction punch-list items, and the Acceptance Test Plan for the facility/process.

200-ZP-1 Operable Unit (-$0.7M)

200W P&T construction negative cost variance is due to modifications in design of Long Lead Equipment (LLE) procurements.

ARRA RL-0030.R1.2 Well Drilling Operations (+$2.4M)

Drilling (+$2.3M)

The positive cost variance is due to efficiencies and savings obtained in drilling for 100-NR-2 and 200-BP-5 wells. Cost efficiencies have been obtained through an aggressive drilling schedule with savings in support personnel and faster drilling methods. Well decommissionings have also been completed for less than planned.

ARRA RL-0030.R1.3 Support Operations (-$0.4M)

Regulatory Decision and Closure Integration (+$1.7M)

The positive cost variance is primarily due to completing work scope more efficiently than planned, primarily in the areas of multi-incremental sampling (using existing documentation and direct haul rather than staging), and borehole drilling and landfill characterization (competitive subcontracting of drilling support and efficient field support).

Ramp-up and Transition (-$2.1M)

The negative cost variance was driven by increased Project Services Distribution to RL-0030.

Base

CTD Schedule Performance (-$2.2M/-0.5%)

The primary contributors to the Base CTD schedule variance that exceed the reporting thresholds are:

Base RL-0030.01 RL 30 (Operations) (-$1.4M)

All Contract to date schedule variances are within threshold.

Base RL-0030.C1 GW Remedy Implementation (-$0.8M)

All Contract to date schedule variances are within threshold.

CTD Cost Performance (-$1.4M/-0.3%)

Primary contributors to the CTD negative cost variance that exceed the reporting thresholds are as follows:

Base RL-0030.01 RL 30 (Operations) (-$7.1M)

Integration & Assessments (+$3.8M)

Primary drivers for this positive cost variance are as follows:

- Less subcontractor support required for Central Plateau strategy development and integration
- Sample Management and Reporting has performed work scope more efficiently than planned
- Less cleanup document reviews were required than originally planned, requiring less contract support. Also efficiencies/savings were realized in establishing document templates, reviewing procedures, and software procurements.

Drilling (-$1.7M)

Radiological contamination encountered on two NR-2 wells has caused additional HPT delays and additional support resource requirements (HPTs). Also, in order to recover schedule and complete the wells by the end of the fiscal year additional well drilling rigs have been used, resulting in overruns to the project.

100-NR-2 OU (+$1.7M)

Chemical treatment and maintenance scope, jet grouting pilot test work, RI/FS Work Plan and Interim Proposed Plan Reporting were performed more efficiently than planned leading to the positive cost variance.

100 HR-3 Operable Unit (-$2.9M)

Primary contributors to the negative cost variance are as follows:

- 100 DX extensive effort required to design the pH adjustment system, cost overruns in completing the OU Remedial Process Optimization studies.
- 100 DX unplanned modifications on the system after completion of construction and higher than expected cost to complete acceptance test plan and the operational test plan
- Cost of realigning wells from DR-5 to 100 DX
- 100 HX Construction cable cost increased due to increases in copper prices
- Additional time and resources being spent on internal CERCLA (RI/FS) document development that will be recovered in completed Draft A document

200 PW-1 OU (+$0.8M)

Labor and subcontract cost for general operations and minor modifications support is less than planned. In addition, efficiencies and savings experienced with the Soil Vapor Extraction (SVE) system testing prior to March 2010 as well as the removal of two old SVE units.

Usage Based Services (-$1.5M)

Increased cost associated with training due to the additional ARRA work in FY2010 and fleet services costs that occurred in FY2009 and FY2010. Overruns will continue to be funds-managed within the S&GRP project.

Base RL-0030.C1 GW Remedy Implementation (+$5.6M)

200-ZP-1 Operable Unit (+$4.6M)

Major contributors to the variance are as follows:

- Interim Operations reflects significant progress and cost underruns achieved to date for System Calibration
- Design of the permanent hookup of well EW-1 was lower than planned as only minor changes were needed to an existing design
- Cost for performing general operating and maintenance and minor modification activities have been lower than planned as the system has been running smoothly
- Cost for collecting depth-discrete groundwater and soil samples during the installation of new wells was less than planned
- 200W Pump-and-Treat Remedial Design/Remedial Action work plan and preliminary design activities were completed with fewer resources than planned
- Delivery of one pump setting truck and two tractors not yet invoiced by MSA

Estimate at Completion (EAC)

ARRA – The projected variance at completion is negative 0.2%.

Base – The projected variance at completion of negative 0.4% is spread among several operational areas and is not considered significant.

ARRA – The EAC change from the previous month is within reporting thresholds.

Base – The EAC change from the previous month is within reporting thresholds.

FUNDS vs. SPEND FORECAST ($M)

WBS 030/ RL-0030 Soil and Groundwater Remediation	FY2011 Projected Funding	FY2011 Spending Forecast	FY2011 Spend Variance
ARRA	157.6	154.4	3.2
Base	174.9	165.5	9.4

Numbers are rounded to the nearest $0.1M.

Funds/Variance Analysis

Funding includes FY2010 carryover and FY2011 new Budget Authority.

Critical Path Schedule

Critical path analysis can be provided upon request.

Baseline Change Requests

BCR-PRC-11-039R0, FY 2012 Annual PMB Update

BCRA-PRC-11-043R0, Admin & Schedule Coding Changes for August 2011

FY2011 Management Reserve (Funded):

ARRA = $0.0M

Base = $0.0M

See management reserve table in the CHPRC Overview.

MILESTONE STATUS

The Tri-Party Agreement (TPA) milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The PRC Baseline Revision 2 Update, implemented in September 2010, and subsequent approved BCRs define CHPRC planning with respect to TPA milestones. The following table is a one year look ahead of key milestones.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-66-T01	Submit CERCLA RI/FS Report and PP for the 100-KR-1, 100-KR-2 and 100-KR-4 Operable Units for groundwater and soil	TPA	9/21/11		9/21/11	On Schedule
M-015-70-T01	Submit Feasibility Study Report and Proposed Plan for 100-HR-1/2/3 and 100-DR-1/2 OUs	TPA	11/24/11		11/10/11	On Schedule
M-015-68-T01	Submit CERCLA RI/FS Report and Proposed Plan for the 100-BC-1, 100-BC-2 and 100-BC-5 Operable Units for groundwater and soil.	TPA	11/30/11		11/30/11	On Schedule
M-091-40L-032	PMM Submittal Jul-Sep 4th Qrtr FY11 Burial Ground Sample Results	TPA	12/15/11		11/30/11	On Schedule
M-015-64-T01	Submit RI/FS Report and PP for 100-FR-1/2/3 and 100-IU-2/6	TPA	12/17/11		12/14/11	On Schedule
M-015-72-T01	Submit RI/FS Report and PP for 300-FF-2/5 OUs for GW and Soil	TPA	12/31/11		12/29/11	On Schedule
M-015-90	Submit RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) and RI/FS work plan for 200-IS-1 OU to Ecology	TPA	12/31/11		12/30/11	On Schedule
M-015-91A	Submit RI/FS Work Plan for the 200-WA-1 OU to U.S. Environmental Protection Agency (EPA)	TPA	12/31/11		12/31/11	On Schedule

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-93A	Submit Rev'd RFI/CMS & RI/FS Work Plan for SW-2 to Ecology	TPA	12/31/11		12/31/11	On Schedule
M-016-111C	Expand P&T System at 100-HR-3 OU to 800 gpm Capacity	TPA	12/31/11		10/15/11	On Schedule
M-016-120	GW Treatment System <50 gpm for Tc-99 Plume at S/SX Tank Farm	TPA	12/31/11		12/31/11	On Schedule
M-016-122	Begin Phase 1 Operation of 200W Pump-and-Treat System	TPA	12/31/11		12/31/11	On Schedule
M-085-10A	Submit RI/FS Work Plan for 200-CB-1 Operable Unit	TPA	12/31/11		12/31/11	On Schedule
M-091-40L-033	Submit Oct-Dec 1st Quarter Burial Ground Sample Results	TPA	3/15/12		2/28/12	On Schedule
M-037-03	Submit revised closure plans to support TSD closure of two TSD Units: 216-B-3 Main Pond system and 216-S-10 Pond and Ditch	TPA	4/30/12		4/30/12	On Schedule
M-015-38B	Submit a revised Feasibility Study Report and revised Proposed Plan (s) for the 200-CW-1, 200-CW-3 and 200-OA-1 OU for Waste Sites in the Outer Area of the Central Plateau to EPA	TPA	4/30/12		4/30/12	On Schedule
M-024-58E	Initiate Discussions of Well Commitments.	TPA	6/1/12		6/1/12	On Schedule
M-091-40L-034	Submit January to March 2nd Quarter FY-12 Burial Ground Sample Results.	TPA	6/15/12		5/31/12	On Schedule
M-015-110D	Submit Technicium-99 Pilot-scale Treatment Study Test Report as an	TPA	6/30/12		6/30/12	On Schedule

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
	element of the Remedial Investigation for the 200-WA-1 OU to EPA.					
M-024-63-T01	Conclude Discussions of Well Commitments Initiated Under M-024-058 and Add a New Interim M-024 Milestone Commitment for 12/31/15 to Incorporate New Well Installations Needed to Maintain a Three-year Rolling Prioritized Drilling Schedule.	TPA	8/1/12		8/1/12	On Schedule

SELF-PERFORMED WORK

The Section H. clause entitled “Self-Performed Work” is addressed in the Overview.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.